

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1-20. (Canceled)

21. (Previously presented) A method of inhibiting costimulation of human T lymphocytes comprising: contacting a human T lymphocyte with a monoclonal antibody that recognizes a human 8F4 polypeptide, wherein said 8F4 polypeptide:

- a) is an inducible T cell costimulatory molecule;
- b) occurs on two-signal-activated human CD4⁺ T lymphocytes from human peripheral blood;
- c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE);
- d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE; and
- e) is recognized by the antibody produced by the hybridoma deposited with the Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH ("DSMZ") and assigned accession no. DSM ACC2539, such that costimulation of the human T lymphocyte is inhibited.

22-24. (Canceled)

25. (Previously presented) The method of claim 21, wherein the monoclonal antibody recognizes the human 8F4 polypeptide of about 55 kilodaltons to 60 kilodaltons, as determined by non-reducing SDS-PAGE.

26. (Previously presented) The method of claim 21, wherein the monoclonal antibody recognizes the peptide chain of about 27 kilodaltons, as determined by reducing SDS-PAGE.

27. (Previously presented) The method of claim 21, wherein the monoclonal antibody recognizes the peptide chain of about 29 kilodaltons, as determined by reducing SDS-PAGE.

28. (Previously presented) The method of claim 21, wherein the monoclonal antibody recognizes a human 8F4 polypeptide present on human CD4⁺ T lymphocytes and activated human CD8⁺ T lymphocytes.

29. (Canceled)

30. (Currently amended) A method of inhibiting rejection of an organ transplant, comprising: administering to an individual in need of such inhibition an 8F4 inhibitory molecule, which 8F4 inhibitory molecule is a monoclonal antibody that recognizes a human 8F4 polypeptide, wherein said 8F4 polypeptide:

- a) is an inducible T cell costimulatory molecule;
 - b) occurs on two-signal-activated human CD4⁺ T lymphocytes from human peripheral blood;
 - c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE);
 - d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE; and
 - e) is recognized by the antibody produced by the hybridoma deposited with the DSMZ and assigned accession no. DSM ACC2539,
- in an amount sufficient to inhibit rejection of an organ transplant.

31. (Canceled)

32. (Previously presented) The method of claim 30, wherein the monoclonal antibody recognizes the human 8F4 polypeptide of about 55 kilodaltons to 60 kilodaltons, as determined by non-reducing SDS-PAGE.

33. (Previously presented) The method of claim 30, wherein the monoclonal antibody recognizes the peptide chain of about 27 kilodaltons, as determined by reducing SDS-PAGE.

34. (Previously presented) The method of claim 30, wherein the monoclonal antibody recognizes the peptide chain of about 29 kilodaltons, as determined by reducing SDS-PAGE.

35. (Previously presented) The method of claim 30, wherein the monoclonal antibody recognizes a human 8F4 polypeptide present on activated human CD4⁺ T lymphocytes and activated human CD8⁺ T lymphocytes.

36. (New) A method for treating an immune disorder, comprising: administering to an individual in need of treatment a monoclonal antibody that recognizes a human 8F4 polypeptide, wherein said 8F4 polypeptide:

- a) is an inducible T cell costimulatory molecule;
- b) occurs on two-signal-activated CD4⁺ T lymphocytes from human peripheral blood;
- c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE);
- d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE; and
- e) is recognized by the antibody produced by the hybridoma deposited with the DSMZ and assigned accession no. DSM ACC2539,

in an amount sufficient to ameliorate a symptom of the immune disorder, such that the immune disorder is treated.

37. (New) A method for treating an autoimmune disorder, comprising: administering to an individual in need of treatment a monoclonal antibody that recognizes a human 8F4 polypeptide, wherein said 8F4 polypeptide:

- a) is an inducible T cell costimulatory molecule;
- b) occurs on two-signal-activated CD4⁺ T lymphocytes from human peripheral blood;
- c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE);
- d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE; and

- e) is recognized by the antibody produced by the hybridoma deposited with the DSMZ and assigned accession no. DSM ACC2539,

in an amount sufficient to ameliorate a symptom of the autoimmune disorder, such that the autoimmune disorder is treated.

39. (New) A method for treating cancer, comprising: administering to an individual in need of treatment a monoclonal antibody that recognizes a human 8F4 polypeptide, wherein said 8F4 polypeptide:

- a) is an inducible T cell costimulatory molecule;
- b) occurs on two-signal-activated CD4⁺ T lymphocytes from human peripheral blood;
- c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE);
- d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE; and
- e) is recognized by the antibody produced by the hybridoma deposited with the DSMZ and assigned accession no. DSM ACC2539,

in an amount sufficient to ameliorate a symptom of the cancer, such that the cancer is treated.

40. (New) A method for treating a chronic viral disease, comprising: administering to an individual in need of treatment a monoclonal antibody that recognizes a human 8F4 polypeptide, wherein said 8F4 polypeptide:

- a) is an inducible T cell costimulatory molecule;
- b) occurs on two-signal-activated CD4⁺ T lymphocytes from human peripheral blood;
- c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE);
- d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE; and
- e) is recognized by the antibody produced by the hybridoma deposited with the DSMZ and assigned accession no. DSM ACC2539,

in an amount sufficient to ameliorate a symptom of the chronic viral disease, such that the chronic viral disease is treated.

41. (New) A method for treating AIDS, comprising: administering to an individual in need of treatment a monoclonal antibody that recognizes a human 8F4 polypeptide, wherein said 8F4 polypeptide:

- a) is an inducible T cell costimulatory molecule;
- b) occurs on two-signal-activated CD4⁺ T lymphocytes from human peripheral blood;
- c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE);
- d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE; and
- e) is recognized by the antibody produced by the hybridoma deposited with the DSMZ and assigned accession no. DSM ACC2539,

in an amount sufficient to ameliorate a symptom of AIDS, such that AIDS is treated.